

A B S T R A C T

A DEVICE FOR MIXING TWO FLUIDS AND THE USE THEREOF FOR
COOLING A FLUID AT VERY HIGH TEMPERATURE

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The device comprises a tubular casing (2) having a first coupling element (5) for feeding it with a first fluid at a first axial end, and a second coupling element (6) for exhausting a mixture of the first fluid and a second fluid at a second axial end. An internal fluid guide duct (18a, 18b) is placed coaxially inside the casing (2) of the mixer. The device further includes a third coupling element (7) in a lateral position passing through the casing (2) between the first coupling element (5) and the second coupling element (6) and opening out into a cylindrical chamber (3) of the mixer in a position facing the outer surface of the guide duct (18a, 18b). The guide duct (18a, 18b) may be made up of two portions and comprises a wall having an insulating space (19a, 19b) formed therein, which space is put into communication with the cylindrical chamber (3). The device of the invention can be used in particular for cooling supercritical water used in a process of oxidizing effluent in supercritical water.

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Translation of the title and the abstract as they were when originally filed by the
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